WHAT IS CLAIMED IS:

1. A method for calibrating an apparatus capable of acquiring a sequence of radiographic images and correcting images of an object under observation, comprising:

for each image of a sequence acquired by the apparatus and for a given frequency of acquisition of the sequence, the apparatus is calibrated by determining the value of the variation of a mean of gray levels in at least one zone of interest of the current image of at least one calibration device, the variation being determined relative to the mean gray level of the first image of the sequence in each zone of interest;

the determination of the variation is reiterated for a series of images sequences acquired using calibration devices resulting in first images of mean gray levels different from one sequence to another; and

each image of an image sequence of the object under observation is corrected, comprising zones of observation having different gray levels by subtracting from the current image the variation of one gray level relative to the first image of the object, the subtraction being a function of the gray level considered from each zone of observation.

2. The method according to claim 1 wherein a graphic representation is approximated having respective for its ordinate and abscissa:

the ratio having in the numerator the mean gray level variation of the current image of the sequence of the calibration device relative to the mean gray level of the first image and in the denominator the mean gray level of the first image; and

the different gray levels of each first image;

by a function for which the characteristics are known.

3. The method according to claim 2 wherein the function is a straight line.

4. The method according to claim 1 wherein the gray level that is corrected in each zone of each image of the object under observation is the mean gray level.

5. The method according to claim 2 wherein the gray level that is corrected in each zone of each image of the object under observation is the mean gray level.

6. The method according to claim 3 wherein the gray level that is corrected in each zone of each image of the object under observation is the mean gray level.

7. The method according to claim 1 wherein the gray level that is corrected in each zone of each image of the object under observation is the median gray level.

8. The method according to claim 2 wherein the gray level that is corrected in each zone of each image of the object under observation is the median gray level.

9. The method according to claim 3 wherein the gray level that is corrected in each zone of each image of the object under observation is the median gray level.

10. The method according to claim 1 wherein the gray level of at least one pixel chose in each image of the object under observation is corrected.

11. The method according to claim 2 wherein the gray level of at least one pixel chose in each image of the object under observation is corrected.

12. The method according to claim 2 wherein the gray level of at least one pixel chose in each image of the object under observation is corrected.

13. The method according to claim 1 wherein the calibration is done before the acquisition of the image sequence of the object under observation.

14. The method according to claim 2 wherein the calibration is done before the acquisition of the image sequence of the object under observation.

15. The method according to claim 3 wherein the calibration is done before the acquisition of the image sequence of the object under observation.

16. The method according to claim 4 wherein the calibration is done before the acquisition of the image sequence of the object under observation.

17. The method according to claim 7 wherein the calibration is done before the acquisition of the image sequence of the object under observation.

18. The method according to claim 10 wherein the calibration is done before the acquisition of the image sequence of the object under observation.

19. The method according to claim 1 wherein each mean gray level value of the series of sequences of the calibration is given by the observation of at least one calibration plate of a defined thickness comprising each calibration device, its thickness changing from one series to another.

20. The method according to claim 2 wherein each mean gray level value of the series of sequences of the calibration is given by the observation of at least one calibration plate of a defined thickness comprising each calibration device, its thickness changing from one series to another.

21. The method according to claim 3 wherein each mean gray level value of the series of sequences of the calibration is given by the observation of at least one calibration plate of a defined thickness comprising each calibration device, its thickness changing from one series to another.

22. The method according to claim 4 wherein each mean gray level value of the series of sequences of the calibration is given by the observation of at least one calibration plate of a defined thickness comprising each calibration device, its thickness changing from one series to another.

23. The method according to claim 7 wherein each mean gray level value of the series of sequences of the calibration is given by the observation of at least one calibration plate of a defined thickness comprising each calibration device, its thickness changing from one series to another.

24. The method according to claim 10 wherein each mean gray level value of the series of sequences of the calibration is given by the observation of at least one calibration plate of a defined thickness comprising each calibration device, its thickness changing from one series to another.

25. The method according to claim 13 wherein each mean gray level value of the series of sequences of the calibration is given by the observation of at least one calibration plate of a defined thickness comprising each calibration device, its thickness changing from one series to another.

26. The method according to claim 13 wherein the mean gray level is determined using a plurality of zones of interest simultaneously at the time of calibration.

27. The method according to claim 19 wherein the mean gray level is determined using a plurality of zones of interest simultaneously at the time of calibration.

28. The method according to claim 19 wherein the subtraction of the correction step depends on the one hand on the gray level in each zone of observation and on the other hand on the position of the zone of observation relative to each zone of interest.

29. The method according to claim 26 wherein the mean gray level is determined using a plurality of zones of interest simultaneously at the time of calibration.

30. The method according to claim 13 wherein the value subtracted from each image of the image sequence of the object is a function on the one hand of the position of the zone of observation and on the other hand of a defined spatial gain function.

31. The method according to claim 19 wherein the value subtracted from each image of the image sequence of the object is a function on the one hand of the position of the zone of observation and on the other hand of a defined spatial gain function.

32. The method according to claim 1 wherein the calibration is done during the acquisition of the image sequence of the object under observation.

33. The method according to claim 2 wherein the calibration is done during the acquisition of the image sequence of the object under observation.

34. The method according to claim 3 wherein the calibration is done during the acquisition of the image sequence of the object under observation.

35. The method according to claim 4 wherein the calibration is done during the acquisition of the image sequence of the object under observation.

36. The method according to claim 7 wherein the calibration is done during the acquisition of the image sequence of the object under observation.

37. The method according to claim 10 wherein the calibration is done during the acquisition of the image sequence of the object under observation.

38. The method according to claim 1 wherein each calibration device is placed in a field of acquisition of the apparatus also comprising the object under observation.

39. The method according to claim 2 wherein each calibration device is placed in a field of acquisition of the apparatus also comprising the object under observation.

40. The method according to claim 3 wherein each calibration device is placed in a field of acquisition of the apparatus also comprising the object under observation.

41. The method according to claim 4 wherein each calibration device is placed in a field of acquisition of the apparatus also comprising the object under observation.

42. The method according to claim 7 wherein each calibration device is placed in a field of acquisition of the apparatus also comprising the object under observation.

43. The method according to claim 10 wherein each calibration device is placed in a field of acquisition of the apparatus also comprising the object under observation.

44. The method according to claim 32 wherein each calibration device is placed in a field of acquisition of the apparatus also comprising the object under observation.

45. The method according to claim 1 wherein each calibration device comprises at least two zones of interest having a mean gray level different from one zone to another for each image.

46. The method according to claim 2 wherein each calibration device comprises at least two zones of interest having a mean gray level different from one zone to another for each image.

47. The method according to claim 3 wherein each calibration device comprises at least two zones of interest having a mean gray level different from one zone to another for each image.

48. The method according to claim 4 wherein each calibration device comprises at least two zones of interest having a mean gray level different from one zone to another for each image.

49. The method according to claim 7 wherein each calibration device comprises at least two zones of interest having a mean gray level different from one zone to another for each image.

50. The method according to claim 10 wherein each calibration device comprises at least two zones of interest having a mean gray level different from one zone to another for each image.

51. The method according to claim 32 wherein each calibration device comprises at least two zones of interest having a mean gray level different from one zone to another for each image.

52. The method according to claim 38 wherein each calibration device comprises at least two zones of interest having a mean gray level different from one zone to another for each image.

53. The method according to claim 32 wherein the value subtracted from each image of the image sequence of the object is a function on the one hand of the observation zone and on the other hand a function of the spatial gain of the apparatus.

54. The method according to claim 38 wherein the value subtracted from each image of the image sequence of the object is a function on the one hand of the observation zone and on the other hand a function of the spatial gain of the apparatus.

55. The method according to claim 39 wherein the value subtracted from each image of the image sequence of the object is a function on the one hand of the observation zone and on the other hand a function of the spatial gain of the apparatus.

56. The method according to claim 32 wherein the calibration measurements of at least two acquisitions of successive sequences are combined.

57. The method according to claim 38 wherein the calibration measurements of at least two acquisitions of successive sequences are combined.

58. The method according to claim 45 wherein the calibration measurements of at least two acquisitions of successive sequences are combined.

59. The method according to claim 53 wherein the calibration measurements of at least two acquisitions of successive sequences are combined.

60. The method according to claim 32 wherein the calibration measurements of at least two acquisitions of successive sequences are combined.

61. The method according to claim 38 wherein the calibration measurements of at least two acquisitions of successive sequences are combined.

62. The method according to claim 45 wherein the calibration measurements of at least two acquisitions of successive sequences are combined.

63.. The method according to claim 53 wherein the calibration measurements of at least two acquisitions of successive sequences are combined.

64. The method according to claim 56 wherein the calibration measurements of at least two acquisitions of successive sequences are combined.

65. An apparatus capable of acquiring a sequence of radiographic images of an object under observation comprising:

means foræach image of a sequence acquired by the apparatus and for a given acquisition frequency, calibrating the apparatus comprising means for determining the value of the variation of a mean of gray levels in at least one chosen zone of interest for the current image of at least one calibration device and determining the variation relative to the mean gray level of the first image of the sequence in each zone of interest;

means for reiterating the determination of the variation for a series of image sequences acquired using calibration devices resulting in first images of mean gray levels different from one sequence to another;

means for correcting each image of an image sequence of the object under observation comprising zones of observation having different gray levels and subtracting from the current image the variation of one gray level relative to the first image of the object, and effecting the subtraction as a function of the gray level considered of each zone of observation.

66. The apparatus according to claim 65 comprising:

means for approximating a graphic representation having, respectively, as ordinate and abscissa, wherein the ratio having in the numerator the mean gray level variation of the current image of the sequence of the calibration device relative to the mean gray level of the first image and in the denominator the mean gray level of the first image, and the different mean gray levels of each first image; and

means for using a function whose characteristics can be determined by an operator of the apparatus.

67. A computer program comprising code means that when executed on a computer or a means for processing carry out all the steps of claim 1.

68. A computer program on a carrier carrying code that when executed on a computer or a means for processing carry out all the steps of claim 1.

69. A computer apparatus or means for processing for carrying out all the steps of claim 1.

70. A method of operating a means for data processing comprising:

for each image of a sequence acquired by an apparatus and for a given frequency of acquisition of the sequence, the apparatus is calibrated by determining the value of the variation of a mean of gray levels in at least one zone of interest of the current image of at least one calibration device, the variation being determined relative to the mean gray level of the first image of the sequence in each zone of interest;

the determination of the variation is reiterated for a series of images sequences acquired using calibration devices resulting in first images of mean gray levels different from one sequence to another; and

each image of an image sequence of the object under observation is corrected, comprising zones of observation having different gray levels by subtracting from the current image the variation of one gray level relative to the first image of the object, the subtraction being a function of the gray level considered from each zone of observation.